

WHAT IS CLAIMED IS:

1. A color conversion relation derivation method of deriving a color conversion relation between a first
5 color space and a second color space, the color conversion relation derivation method comprising:

an area forming step that forms a plurality of areas filling the first color space;

a partial function derivation step that derives,
10 for each of the areas formed in the area forming step, a partial function representative of a color conversion between coordinates in the area and coordinates of the second color space using a set of an arbitrary sample point provided in the first color space and a point in the second
15 color space, which is associated with the sample point; and

a whole function derivation step that combines the partial functions for the respective areas derived by the partial function derivation step to derive a whole function representative of the color conversion relation through the
20 first color space in its entirety.

2. A color conversion relation derivation method according to claim 1, wherein the area forming step forms, as the plurality of areas, a plurality of areas overlapping
25 with one another, and

the whole function derivation step combines the partial functions in a range that the areas are overlapped

with one another.

3. A color conversion relation derivation apparatus for deriving a color conversion relation between
5 a first color space and a second color space, the color conversion relation derivation apparatus comprising:

an area forming section that forms a plurality of areas filling the first color space;

10 a partial function derivation section that derives, for each of the areas formed in the area forming section, a partial function representative of a color conversion between coordinates in the area and coordinates of the second color space using a set of an arbitrary sample point provided in the first color space and a point in the second
15 color space, which is associated with the sample point; and

a whole function derivation section that combines the partial functions for the respective areas derived by the partial function derivation section to derive a whole function representative of the color conversion relation
20 through the first color space in its entirety.

4. A color conversion relation derivation program storage medium storing a color conversion relation derivation program which causes a computer to operate as a
25 color conversion relation derivation apparatus, when the color conversion relation derivation program is incorporated into the computer and is executed, the color

conversion relation derivation apparatus comprising:

an area forming section that forms a plurality of areas filling the first color space;

5 a partial function derivation section that derives,
for each of the areas formed in the area forming section, a partial function representative of a color conversion between coordinates in the area and coordinates of the second color space using a set of an arbitrary sample point provided in the first color space and a point in the second
10 color space, which is associated with the sample point; and

a whole function derivation section that combines the partial functions for the respective areas derived by the partial function derivation section to derive a whole function representative of the color conversion relation
15 through the first color space in its entirety.